IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT SOUTH CAROLINA

DISABILITY RIGHTS SOUTH CAROLINA, ABLE SOUTH CAROLINA, LYUDMYLA TSYKALOVA, individually and on behalf of M.A., a minor; EMILY POETZ, individually and on behalf of L.P., a minor; TIMICIA GRANT, individually and on behalf of E.G. a minor, CHRISTINE COPELAND individually and on behalf of L.C. a minor, HEATHER PRICE individually and on behalf of H.P. a minor, and CATHY LITTLETON individually and on behalf of Q.L. a minor,

Plaintiffs,

v.

HENRY McMASTER, in his official capacity as Governor of South Carolina; ALAN WILSON, in his official capacity as Attorney General of South Carolina; MOLLY SPEARMAN, in her official capacity as State Superintendent of Education; GREENVILLE COUNTY SCHOOL BOARD; HORRY COUNTY SCHOOL BOARD; LEXINGTON COUNTY SCHOOL BOARD; OCONEE COUNTY SCHOOL BOARD; and PICKENS COUNTY SCHOOL BOARD

Defendants.

Case No. 3:21-cv-02728-MGL

Declaration of Dr. Robert Saul

I, Dr. Robert Saul, declare as follows under penalty of perjury pursuant to 28 U.S.C. § 1746:

Background

1. I am currently the President of the South Carolina Chapter of the American Academy of Pediatrics. I am recently retired; I have forty-five years of experience as a physician in the field of Pediatrics and Genetics.

2. I received my Bachelor of Arts from Colorado College, magna cum laude, in 1972 and my M.D., cum laude, from the University of Colorado School of Medicine in 1976. I completed my residency in Pediatrics at the Duke University Medical Center in 1979 and my fellowship in Genetics with the Department of Pediatrics at the Medical University of South Carolina (affiliation with the Greenwood Genetic Center) in 1981. I am a Fellow within the American Academy of Pediatrics, a Founding Fellow of the American College of Medical Genetics and Genomics, and a member of the American Medical Association, the South Carolina Chapter of the American Academy of Pediatrics, the South Carolina Medical Association, and the American Pediatric Society.

3. I was a practicing pediatrician in private practice for twenty-four years (1979-2003), during which time I served tenures as the Chair of the Department of Pediatrics, the Chair of the Department of Medical Genetics, and the President of the Medical Staff at the Self Regional Medical Center in Greenwood. I also held various roles at the Greenwood Genetic Center (1981-2013), including having served as the Executive Director, the Medical Director, the Director of Clinical Services, and the Training Program Director. More recently (2013-2020), I served as the Medical Director for General Pediatrics and the Senior Medical Director for

Pediatric Medicaid Services at the Children's Hospital, Prisma Health–Upstate. In addition, I was a Professor of Pediatrics at the University of South Carolina School of Medicine at Greenville. Most recently (2017-2020), I practiced at the Ferlauto Center for Complex Pediatric Care.

4. My scholarly work includes six research studies, over 100 articles and publications, and six books on the subjects of pediatric genetics, citizenship and community improvement, parenting, and developmental pediatrics. My scholarly work has a broad scope, ranging from scientific research to delineation of clinical syndromes to practical clinical applications.

5. In addition to my practice and my scholarly work, I have served on various government and nonprofit committees and boards dedicated to pediatric health. At the South Carolina Department of Health and Environmental Control, I served on the Children's Health Protection Advisory Committee for a total of fifteen years, including as the Chair for seven, and also on the Pediatric Task Force to Reduce Perinatal Mortality and the Needs Assessment Work Group for Children with Special Health Care Needs. In addition, I served on the Board of Trustees of South Carolina First Steps to School Readiness, the Board of Directors for the American College of Medical Genetics and Genomics, and the Executive Committee of the American Academy of Pediatrics (AAP) Section on Birth Defects and Genetics and the AAP's Committee on Genetics with terms of service as Chair of both. I was also the project co-director of the Genetics in Primary Cary Institute of the American Academy of Pediatrics and Chair of the Institutional Review Board-B for research studies for Prisma Health-Upstate (previously Greenville Health System) from 2016-2019.

6. I received the American Academy of Pediatrics 2018 David W. Smith Award for Excellence in Genetics and Birth Defects Education (presented by its Council on Genetics), in addition to numerous awards from the South Carolina Chapter of the American Academy of Pediatrics.

7. My CV is attached as Exhibit A.

8. I am familiar with the provision of the South Carolina budget recently passed known as Proviso 1.108 or the "Mask Mandate Prohibition." In my expert opinion, this provision will hurt the children of this state and their families by denying schools the ability to fashion policies for their districts that attend to the health needs of their students. If students face the prospect of going to school in areas of substantial or high risk of COVID-19 transmission, with no requirements of masks, they are forced either to attend school at risk to their health and that of their families or to stay out of school, also a risk to their well-being. I am particularly concerned for those students with disabilities that increase the risk of severe illness should they contract COVID-19.

9. I am not being compensated for my time reviewing materials and preparing this report.

I. Increased COVID-19 Transmission and Prevalence of the Delta Variant in South Carolina

10. The beginning of this school year coincides with a dramatic increase in COVID-19 transmission. As of August 12, only two counties were not experiencing "substantial" or "high" COVID-19 transmission rates. As of August 18, 2021, the seven-day rolling average of new daily cases has risen every day since June 21, 2021.[1] Furthermore, the test positivity rate, an

[1] *South Carolina coronavirus cases and deaths*, USAFacts, https://usafacts.org/visualizations/coronavirus-covid-19-spread-map/state/south-carolina (last visited Aug. 21, 2021).

indicator of increasing COVID-19 community spread,[2] has risen from less than 2% to over 17% in South Carolina over this same time period.[3] When compared to the rest of the United States, South Carolina is experiencing above average daily case rates per 100,000 residents and a faster rate of increase in COVID-19 cases; as of August 18, 2021, the average daily case count per 100,000 residents is 60% higher in South Carolina than the United States as a whole.[4]

11. The COVID-19 Delta variant is estimated to account for over 85% of all COVID-19 cases in South Carolina as of August 14, 2021.[5] This is relevant to the overall COVID-19 transmission landscape given that the Center for Disease Control and Prevention (CDC) estimates that the Delta variant is at least twice as transmissible as previous variants and that it could likely lead to more severe illness.[6]

II. The Impact of the Delta Variant for Children

12. Pediatric COVID-19 cases comprise an increasing share of overall COVID-19 cases both in the United States and in South Carolina. On August 16, 2021, the number of children hospitalized due to COVID-19 in the United States reached an all-time high exceeding 1,900.[7] Pediatric hospitalizations now account for 2.3% of all COVID-19-related hospitalizations, compared to less than 1% in May of 2020.[8] Similarly, pediatric COVID-19

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[2] *See, e.g., Positivity Rate Explained*, Barry-Eaton Dist. Health Dep't. (Oct. 2020), https://www.barrycatonhealth.org/sites/default/files/Positivity%20Rate%20Explained.pdf (last visited Aug. 21, 2021).
[3] Mayo Found. for Medical Educ. & Res., *South Carolina coronavirus map: What do the trends mean for you?*, Mayo Clinic, https://www.mayoclinic.org/coronavirus-covid-19/map/south-carolina (last visited Aug. 21, 2021).
[4] *Coronavirus in the U.S.: Latest Map and Case Count*, N.Y. Times (Aug. 18, 2021 update), https://www.nytimes.com/interactive/2021/us/covid-cases.html (last visited Aug. 21, 2021).
[5] *CDC Covid Data Tracker: Variant Proportions*, Ctrs. for Disease Control & Prevention, https://covid.cdc.gov/covid-data-tracker/#variant-proportions (last visited Aug. 21, 2021).
[6] *Delta Variant: What We Know About the Science*, Ctrs. for Disease Control & Prevention (May 7, 2021 update), https://www.cdc.gov/coronavirus/2019-ncov/variants/delta-variant.html.
[7] Carolyn Crist, *U.S. Reports Record COVID Hospitalizations of Children*, WebMD (Aug. 16, 2021), https://www.webmd.com/lung/news/20210816/u-s-reports-record-covid-hospitalizations-of-children (last visited Aug. 21, 2021).
[8] *Children and COVID-19: State Data Report: Version: 8/12/21*, Am. Acad. Pediatrics (Aug. 16, 2021 update), https://www.aap.org/en/pages/2019-novel-coronavirus-covid-19-infections/children-and-covid-19-state-level-data-report/ (last visited Aug. 21, 2021).

cases represented fewer than 5% of all cases in May of 2020, but now account for over 14% of total cases.[9]

13. In South Carolina, the threat to minors is even more acute. Based on available data from 48 states assembled by the American Academy of Pediatrics, South Carolina has the fourth highest cumulative case rate per 100,000 children in the United States, with over 9,500 recorded pediatric cases per 100,000 children.[10] Based on data from 49 states, South Carolina also has the third highest proportion of pediatric COVID-19 cases in the United States with children accounting for over 19% of all South Carolina COVID-19 cases.[11]

III. The Availability of Vaccines for Children and Overall Vaccination Rates in South Carolina

14. Children in South Carolina are vulnerable to the Delta variant given the unavailability of vaccines for children under the age of 12 and the low vaccination rate for children twelve to nineteen years old. None of the three available COVID-19 vaccines have been approved, for emergency use or otherwise, for children under the age of twelve.[12] In South Carolina, only about 25% of adolescents aged twelve to nineteen have received at least one dose of the vaccine.[13]

15. In addition, as with adults, some children cannot be vaccinated given underlying medical conditions.

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[9] *Id.* at 12, 15.
[10] *Id.* at 7.
[11] *Id.* at 25.
[12] *Covid-19 Vaccines for Children and Teens,* Ctrs. for Disease Control & Prevention (Aug. 17, 2021 update), https://www.cdc.gov/coronavirus/2019-ncov/vaccines/recommendations/adolescents.html (last visited Aug. 21, 2021). On August 23, 2021, the Food and Drug Administration approved the Pfizer vaccine for individuals sixteen years of age and older, but did not approve the vaccine for individuals twelve and younger. *See FDA Approves First COVID-19 Vaccine*, Food & Drug Admin. (Aug. 23, 2021), https://www.fda.gov/news-events/press-announcements/fda-approves-first-covid-19-vaccine. The Pfizer vaccine continues to be available for individuals age twelve to fifteen under an emergency use authorization, which meets demanding but not equivalent scientific standards. *Id.*
[13] *COVID-19 Vaccination Dashboard,* S.C. Dep't. of Health & Envtl. Control, https://scdhec.gov/covid19/covid-19-vaccination-dashboard (last visited Aug. 21, 2021).

16. According to the CDC, unvaccinated people are much more likely to contract, transmit, and experience severe symptomatic illness from the Delta variant than their vaccinated counterparts.[14] In light of the data on pediatric vaccination rates and the unavailability of vaccines to the youngest school-aged children, children account for a disproportionate share of Americans to whom the Delta variant poses the greatest risk.

IV. Conditions That Can Put Children at Greater Risk of Severe Illness from COVID-19

17. As noted above, children are particularly vulnerable to COVID-19 as a result of vaccination rates within this population. Of greatest concern are those children who are not or cannot be vaccinated who have underlying medical conditions that increase their risk for severe illness as a result of COVID-19 infection. According to the CDC, "children with medical complexity, with genetic, neurologic, metabolic conditions, or with congenital heart disease," as well as "children with obesity, diabetes, asthma or chronic lung disease, sickle cell disease, or immunosuppression" may fall into this category.[15]

18. Most if not all of the children with these conditions are disabled within the meaning of the Americans with Disabilities Act (the ADA).[16] The ADA defines disability as "a physical or mental impairment that substantially limits one or more major life activities of such individual."[17] Major life activities for purposes of the Act "include but are not limited to, caring for oneself, performing manual tasks, seeing, hearing, eating, sleeping, walking, standing, lifting, bending, speaking, breathing, learning, reading, concentrating, thinking, communicating, and working;" a major life activity "also includes the operation of a major bodily function, including

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[14] *Delta Variant: What We Know About the Science*, Ctrs. for Disease Control & Prevention (May 7, 2021 update), https://www.cdc.gov/coronavirus/2019-ncov/variants/delta-variant.html

[15] *People with Certain Medical Conditions*, Ctrs. for Disease Control & Prevention (Aug. 20, 2021 update), https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html (last visited Aug. 21, 2021).

[16] 42 U.S.C. § 12101 *et seq.*

[17] 42 U.S.C. § 12102(1).

but not limited to, functions of the immune system, normal cell growth, digestive, bowel, bladder, neurological, brain, respiratory, circulatory, endocrine, and reproductive functions."[18] Conditions such as asthma, chronic lung disease, diabetes, sickle cell disease, and congenital heart disease by definition substantially limit a major bodily function.

19. These are not the only children at risk of grave harm. Individuals with intellectual disabilities are also at increased risk of contracting COVID-19 and of dying from COVID-19 infection. A recent study published in the New England Journal of Medicine—working with a data set of 64,414,495 patients across more than 500 U.S. healthcare systems, of which "127,003 were patients with intellectual disabilities and 64,287,492 were patients without intellectual disabilities"—concluded that "intellectual disability was the strongest independent risk factor for presenting with a Covid-19 diagnosis and the strongest independent risk factor other than age for Covid-19 mortality."[19] The study found individuals with intellectual disabilities were more likely to contract COVID; if diagnosed with COVID, more likely to be admitted to the hospital; and more likely to die following admission.[20] The risks reflect the risks associated with intellectual disability itself, as well as comorbidities that in the study were overrepresented among those with intellectual disabilities. Notably, the odds of mortality among those with intellectual disabilities in the study were "significantly higher than other conditions such as congestive heart failure, kidney disease, and lung disease."[21]

20. Doctors and medical researchers have raised concerns about the risks to children with Autism Spectrum Disorder (ASD) in schools where masks are not required at times of widespread COVID infection. Many children that I have cared for with ASD have comorbidities

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[18] 42 U.S.C. §§ 12102(2)(A)-(B).
[19] Jonathan Gleason *et al.*, *Commentary: The Devastating Impact of Covid-19 on Individuals with Intellectual Disabilities in the United States*, New Eng. J. Med. (Mar. 5, 2021), https://catalyst.nejm.org/doi/full/10.1056/CAT.21.0051.
[20] *Id.*
[21] *Id.*

that put them at increased risk for COVID-19, especially since many children with ASD can have a harder time adhering to social distancing.

21. During the pandemic in 2020, many of the families I cared for expressed serious concerns about their children (those with complex health conditions and those without health issues) being in school and being exposed to COVID-19. Their concerns are even greater with the start of the 2021-2022 school year and the Delta variant of COVID-19. Specifically, one family with an eleven-year-old daughter with a serious genetic condition (profound intellectual disability and seizures) is concerned about the risk to that child and their two typically developed children from other children (unmasked) at school. Another family with a daughter with a different genetic condition that required assisted ventilation (tracheostomy tube and ventilator) and feeding tube has made substantial progress, but now the family worries about her ability to pursue her special education. They worry too whether her typical siblings will be safe and transmit COVID-19 from possible exposure at school. A mother of extremely premature twins (now four years of age) noted that they were born at twenty-four weeks and sustained multiple health consequences (respiratory primarily). She is now very concerned about their possible exposure in the school setting given their significant vulnerability to such a severe respiratory virus. In my expert opinion, these parents are rightly concerned about sending their children to school unless schools take preventive steps.

22. Finally, children may also be at risk of developing what has come to be known as long COVID, where symptoms remain months after an initial COVID diagnosis. While further study is essential to know the scope of long COVID in children, with current estimates varying

significantly, medical researchers have raised concerns about the long-term impact of COVID on young people, even among the asymptomatic.[22]

V. CDC and State Department of Health Recommendations on Masking in Schools and the Efficacy of Masking for Reducing COVID-19 Transmission

23. The CDC recommends "universal indoor masking for all students, staff, teachers, and visitors to K-12 schools, regardless of vaccination status."[23] Underlying the CDC guidance are concerns about "the highly transmissible nature of this variant," the ineligibility of children under twelve for the vaccine, and low levels of vaccination among youth ages twelve to seventeen, all factors present in our state at this time.[24]

24. Leading medical organizations, including the American Academy of Pediatrics and the American Medical Association, similarly recommend universal masking as part of school openings.[25]

25. The South Carolina DHEC too "strongly recommends mask use for all people when indoors in school settings."[26] On August 20, 2021, the South Carolina DHEC voted unanimously to request that the South Carolina legislature reconvene in a special session to "provide local authority for mask mandates," and remove the budget provision that would ban school districts from mandating masks.[27]

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[22] Dyani Lewis, *Long COVID and Kids: Scientists Race to Find Answers*, 595 Nature 482 (2021).
[23] *Guidance for Covid-19 Prevention in K-12 Schools*, Ctrs. for Disease Control & Prevention (Aug. 5, 2021 update), https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/k-12-guidance.html (last visited Aug. 21, 2021).
[24] *Id.*
[25] *See, e.g.*, *American Academy of Pediatrics Updates Recommendations for Opening Schools in Fall 2021*, Am. Acad. Pediatrics (July 19, 2021), https://www.aap.org/en/news-room/news-releases/aap/2021/american-academy-of-pediatrics-updates-recommendations-for-opening-schools-in-fall-2021/.
[26] *DHEC Recommends Vaccinations, Mask Use, and Other COVID-19 Protocols in School Guidance for K-12 2021-2022 Academic Year*, S.C. Dep't. of Health & Envtl. Control (July 29, 2021), https://scdhec.gov/news-releases/dhec-recommends-vaccinations-mask-use-other-covid-19-protocols-school-guidance-k-12 (last visited Aug. 21, 2021).
[27] Jeffrey Collins, *SC health board joins groups asking to end school mask ban*, Associated Press (Aug. 20, 2021), https://apnews.com/article/business-health-coronavirus-pandemic-a22ea100ce5b97a16680f55350a8c99a (last visited Aug. 21, 2021).

26. Recent studies have confirmed that wearing masks is one of the most powerful tools to thwart the transmission of COVID-19 in indoor settings, such as schools. Researchers at Duke University conducted a study on COVID-19 transmission within schools, some of which were in counties bordering South Carolina, following "Plan A" which "provided full, in-person instruction, masking, and minimal physical distancing."[28] Analysis conducted by Duke University researchers using data from North Carolina K-12 schools —data that included more than 1,280,000 students and 160,000 staff—found that "there is very limited within-school transmission of COVID-19 in schools participating in Plan A," leading the researchers to conclude that "wearing masks is an effective strategy to prevent in-school COVID-19 transmission."[29]

27. This study confirms what the CDC and other studies have reported: The CDC has stated, "Experimental and epidemiological data support community masking to reduce the spread" of the Delta variant.[30] A recent literature review concluded that "nonmedical masks have been effective in reducing transmission of respiratory viruses; and places and time periods where mask usage is required or widespread have shown substantially lower community transmission."[31]

28. Masking is also critical for the health of those who, for reasons of disability, cannot mask. Those include people who struggle to take a mask off and on, whether because of

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[28] *The ABCs of North Carolina's Plan A*, ABC Science Collaborative (July 1, 2021), https://abcsciencecollaborative.org/the-abcs-of-north-carolinas-plan-a/ (last visited Aug. 21, 2021).

[29] Letter from Danny Benjamin & Kanecia Zimmerman to Joint Legislative Education Oversight Committee et al. (June 30, 2021), https://abcsciencecollaborative.org/wp-content/uploads/2021/06/ABCs-Final-Report-June-2021.06-esig-DB-KZ-6-29-21.pdf (last visited Aug. 21, 2021).

[30] *Science Brief: Community Use of Cloth Masks to Control the Spread of SARS-CoV-2*, Ctrs. for Disease Control & Prevention (May 7, 2021 update), https://www.cdc.gov/coronavirus/2019-ncov/science/science-briefs/masking-science-sars-cov2.html#anchor_1619456988446 (last visited Aug. 21, 2021).

[31] Jeremy Howard *et. al.*, *An Evidence Review of Face Masks against COVID-19*, 118 PNAS 1, 1-12 (2021). *See also* Yafang Cheng, *et al.*, *Face Masks Effectively Limit the Probability of SARS-CoV-2 Transmission*, 372 Science 1439, 1439-1443 (2021).

motor skills or cognitive issues; people with sensory processing disorders; and people with facial deformities incompatible with a mask, among others.[32]

29. As noted above, families that I worked with and all of the children not vaccinated are at great risk for a COVID-19 infection. Given the rise in pediatric infections (and adult infections) due to the Delta variant of COVID-19, in my expert opinion, the only safe course at this time is universal masking at school and school-related functions until our public health officials declare a safe level of population-wide vaccination. As a pediatrician, I am concerned about all children but particularly worried about those children with complex medical conditions and/or disabilities since the latter group could more likely sustain severe illness or even death. The risk of death is low overall, but certainly elevated for the vulnerable group. Any severe illness or death is unacceptable for a preventable disease.

VI. The Necessity of Allowing South Carolina Schools to Set Their Own Mask Policies

30. South Carolina's Mask Mandate Prohibition denies school districts the ability to require masks to protect their students and staff. In communities where COVID-19 is prevalent, parents with children with conditions that can make them vulnerable to severe illness in particular will face a terrible dilemma of whether to risk their children's health and even life, or to keep the children out of school. That is not a decision they should be forced to make, when we have the option of masks to protect the safety of those in the school.

31. My concern is greatest for these children, but it does not stop there. No child should risk serious illness if we can prevent it.

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[32] Doron Dorfman & Mical Raz, *Mask Exemptions During the COVID-19 Pandemic—A New Frontier for Clinicians*, JAMA Health F. Insights (July 10, 2020), https://jamanetwork.com/journals/jama-health-forum/fullarticle/2768376?resultClick=1.

32. And it's not just the children. Children who catch the virus at school will bring it home, risking their families' health and security. This is particularly concerning given the state's low vaccination rates and high rates of comorbidities in the adult population.

33. In my opinion, the state cannot in good conscience let this policy stand given the threat it poses to children and their families.

I, Dr. Robert Saul, do affirm that this Declaration is true and correct.

Robert Saul, MD

Dr. Robert Saul

Dated: August 25, 2021

NAME:	Robert Anthony Saul
ADDRESS: (Home):	108 Wimbledon Court Greenwood, SC 29646 864-980-8372 (M) Email—robertsaul@me.com
(Work):	Prisma Health-Upstate Children's Hospital (retired) Email—robert.saul@prismahealth.org
DATE OF BIRTH:	March 17, 1950
PLACE OF BIRTH:	Chicago, Illinois
MARRIAGE:	Molly Ann McClure, October 31, 1970 (Separated 1986, Divorced 1987) Jan LeRoy Hemminger, February 6, 1988
CHILDREN:	Bradley Conor Saul, (B.D. 6/9/78) Benjamin Robert Saul, (B.D. 9/23/90)
EDUCATION:	High School - Palmer High School Colorado Springs, Colorado - 1968 College - Duke University, Durham, NC 1968-1970 Colorado College, Colorado Springs, CO 1970-1972 Degree - B.A., magna cum laude Medical School - University of Colorado School of Medicine - 1972-1976 Degree - M.D., cum laude

APPOINTMENTS, POSITIONS:

- First Year Resident in Pediatrics – Duke University Medical Center, Durham, NC, 1976-1977

- Second Year Resident in Pediatrics – Duke University Medical Center, Durham, NC, 1977-1978
- Third Year Resident in Pediatrics – Duke University Medical Center, Durham, NC, 1978-1979
- Fellow, Genetics - Department of Pediatrics, Medical University of South Carolina (Greenwood Genetic Center), 1979-1981
- Staff Geneticist - Greenwood Genetic Center, 1981-1985
- Associate Director - Greenwood Genetic Center, 1985-1989
- Director - Greenwood Genetic Center, 1989-1994
- Executive Director - Greenwood Genetic Center, 1994-1997
- Medical Director - Chief Operating Officer - Greenwood Genetic Center, 1997 – 1998
- Director of Clinical Services – Greenwood Genetic Center, 2012 - 2013
- Senior Clinical Geneticist – Greenwood Genetic Center, 1998 - 2013
- Training Program Director – Greenwood Genetic Center, 1989 – 2013
- Professor of Pediatrics, University of South Carolina School of Medicine-Greenville, April 1, 2013 – 2020; Professor (Emeritus) 2021 - present
- Medical Director, General Pediatrics – Children's Hospital, Greenville Health System, 2013 – 2019 (name change to Prisma Health-Upstate 2017)
- Senior Medical Director, Pediatric Medicaid Services – Children's Hospital, Greenville Health System, 2013 – 2019 (name change to Prisma Health-Upstate 2017)
- Department of Pediatrics CME coordinator—Greenville Health System, 2013 – 2019
- Clinical practice, Ferlauto Center for Complex Pediatric Care, 2017 – 2020.

- Private Practice, Pediatrics – Greenwood Children's Clinic, 1979-1997; Greenwood Community Children's Center, 1997-2003.
- Chairman, Department of Pediatrics, Self Memorial Hospital, 1981, 1993

- Chairman, Department of Medical Genetics, Self Memorial Hospital, 1986-1996; Self Regional Health Care, (2004-present)
- Secretary, Department of Medical Genetics, Self Memorial Hospital, 1997
- Secretary-Treasurer, Medical Staff, Self Memorial Hospital, 1997
- President-elect, Medical Staff, Self Memorial Hospital, 1998
- President, Medical Staff, Self Memorial Hospital, 1999
- Chair, Physician Advocacy and Assistance Committee, 2001-2012 (Self Regional)
- Chair, Credentials Committee, 2002-2005 (Self Regional)
- Member, Board Committee on Quality, (Self Regional), 2006-2010
- Clinical Assistant Professor of Family Medicine (Greenwood), Medical University of South Carolina, 1982 [inactive]
- Clinical Professor of Pediatrics, University of South Carolina School of Medicine-Columbia, 1984 [inactive]
- Chairperson, Subcommittee "Children Who Are Victims of Alcohol and Drug Abuse: Infant Mortality and Handicapping Conditions" Children's Coordinating Cabinet, State of South Carolina, 1985
- Member, Children's Health Advisory Committee, SC Department of Health and Environmental Control, 1986-1989; 1992-2004; Chairperson, 1997-2004.
- Member, Perinatal Delegation (People to People, Citizen Ambassador Program), People's Republic of China, May 1986
- NIH Special Study Section, Review for Program Project Grant, Pittsburgh, PA, April 1989
- Member, Pediatric Task Force to Reduce Perinatal Mortality, South Carolina, Department of Health and Environmental Control, 1989-1993
- Member, Needs Assessment Work Group--Children with Special Health Care Needs, South Carolina Department of Health and Environmental Control, 1992-1995
- Board of Trustees, South Carolina First Steps to School Readiness, 1999-2003 (Chair, Applications/Grants Committee)

- Managing Editor, Pediatric Genetics section, Emedicine, online textbook, 2000-2001
- Member, South Carolina Medical Association Maternal, Infant, and Child Health Committee, 2004-2008
- American College of Medical Genetics and Genomics, Board of Directors (effective Mar 2007-2013)
- Editor-in- Chief, *ACMG Medical Geneticist* (newsletter of the American College of Medical Genetics and Genomics), 2010 - 2013
- Executive Committee, American Academy of Pediatrics Section on Birth Defects and Genetics, 1997-2011 (Chair, Programs—1999-2003; Chairperson, 2003-2007; Subcommittee chair, Selection of the David W. Smith Award for Excellence in the Genetics and Birth Defects Education, 2010-2012)
- Committee on Genetics, American Academy of Pediatrics, 07/2007-06/2015 (Chair, 2011-2015)
- NCC (National Coordinating Council) State Newborn Screening Program and Provider Collaboration to Accomplish the Goals of the Newborn Screening Saves Lives Act (funded by HRSA MCHB/GSB and NICHD), 2009-2010
- Joint NCC/RC (National Coordinating Council/Regional Center) LTFU (Long term follow up) & NBSTRN (Newborn Screening Translational Research Network) Clinical Centers Workgroup, 2009-2011
- AAP Quality Improvement Innovation Network (QuIIN) for newborn screening, 10/09 – 2/11
- South Carolina Diversity Leadership Initiative graduate (scholarship recipient), Riley Institute at Furman University, Upstate Class X, Fall 2010 (Riley Fellow)
- AAP Education in Quality Improvement in Pediatric Practice (eQIPP) for newborn screening, 1/11—early 2012
- Genetics in Primary Care Institute (GPCI); Project Co-Director (HRSA-funded grant to the AAP; onset July 2011; 3 years [2011-2014], over $1.5 M total)
- Member of the Strategic Planning Group for the AAP Board of Directors on the Epigenetics Strategic Planning Initiative (effective April 2012 to 2015)—Epigenetics Leadership Group
- AAP Liaison to the American College of Obstetrics and Gynecology Committee on Genetics (effective April 2012 – June 2015)

- AAP Liaison to Inter-Society Coordinating Committee for Practitioner Education in Genomics (effective 2013-2014 and sponsored by the National Human Genome Research Initiative)

- Chair, Family History Tool for Pediatric Providers Advisory Group; Genetics in Primary Care Institute (2012 – 2013)

- Chair, Residency Education Initiative Working Group; Genetics in Primary Care Institute (May 2013 – 2014)

- Member of the AAP Working Group for "Down Syndrome Healthcare Guidelines for Parents"—2013

- Member, SCAAP Executive Committee, Education subcommittee, 2013 – 2019; Chair, 2016 SCAAP Annual Meeting

- Member, AAP National Conference and Exhibition Planning Group, 2013 - 2019

- Chair, Early Identification, Management and Treatment of Global/Motor Delay initiative (Fragile X Syndrome Expert Panel—project of the American Academy of Pediatrics and the Centers for Disease Control)—2014 – 2018

- Principal Investigator—Insights on Evaluation of Children with Developmental Disability – a component of the early identification and treatment of Fragile X syndrome (FXS) needs assessment project. AAP Study ID# 15 SA 01. Approved July 2015, concluded 2016.

- Principal Investigator--Insights on Evaluation of Children with Developmental Disabilities-a component of the early identification and treatment of Fragile X Syndrome (FSX) needs assessment project [Project DIG-IT]. Phase 2" (IRB Study # 15 SA 02). Approved 2016, to conclude in 2017. [This project is funded through a cooperative agreement between the American Academy of Pediatrics and from the Centers for Disease Control and Prevention (Grant Number: 5 NU38 OT000167)].

- CME coordinator, Department of Pediatrics, GHS, 2013 – 2019 (includes service on the GHS CME committee)

- University of South Carolina School of Medicine – Greenville Admissions Committee, August 2015 – 2019

- Greenville Health System Institutional Review Board B, September 2015 – 2019; Chair effective 1/1/16

- Invited Program Chair for the organizing committee for an inaugural meeting in June 2016 for the Association for Comprehensive Care in Rare Diseases (Optimizing Primary Care for

Patients with Rare Diseases), Las Vegas, NV (meeting postponed); website established - http://www.rareopportunities.com/CME

- American Academy of Pediatrics liaison to Secretary's Advisory Committee on Heritable Disorders in Newborns and Children (ACHDNC), Department of Health and Human Services (US government)—August 2016 to July 2017.

- American Academy of Pediatrics liaison, American Academy of Allergy, Asthma & Immunology (AAAI), Vaccines and Medications in Pregnancy Surveillance System (VAMPSS) Independent Advisory Committee, appointment in November 2016 for a 2 year term until 2018 (and extended until 2020).

- Vice President, South Carolina Chapter of the American Academy of Pediatrics, July 2018 – July 2020.

- President, South Carolina Chapter of the American Academy of Pediatrics, August 2020 – present

HOSPITAL AFFILIATIONS:

- Self Regional Health Care (Self Memorial Hospital prior to 11/2001) 1979-2013 (Inactive)

- Prisma Health-Upstate (formerly Greenville Memorial Hospital) – through 2020; retired

- Shriners Hospital for Children (Teaching) [Inactive]

- Mary Black Hospital (Spartanburg -Consulting) [Inactive]

- Spartanburg Regional Healthcare System [Inactive]

- McLeod Regional Medical Center (Florence, SC [Associate Consultant]) [Inactive]

PROFESSIONAL SOCIETIES:

- Fellow, American Academy of Pediatrics (Member, Council on Genetics)

- Founding Fellow, American College of Medical Genetics and Genomics

- American Society of Human Genetics (inactive)

- American Medical Association
- American College of Physician Executives (inactive)
- South Carolina Perinatal Association (inactive)
- South Carolina Chapter, American Academy of Pediatrics
- South Carolina Medical Association
- Greenwood County Medical Society (discontinued 2013)
- Greenville County Medical Society (started 2013)
- American Pediatric Society (effective 1/1/16)

HONORS:

- Alpha Omega Alpha Honor Medical Society -1975
- Emanuel Friedman Award – 1976 (Outstanding Performance for the Art of Medicine in Pediatrics)
- Maternal and Child Health Day--Special Recognition Award Dec. 11, 1996 (for exemplary service to mothers and children in South Carolina) South Carolina Dept. of Health and Environmental Control, Bureau of Maternal and Child Health
- CATCH (Community Access to Children's Health) Recognition Award—Jan. 2001, SC CATCH meeting
- Phi Beta Kappa – 2012; honorary membership in the Gamma Chapter (Furman University) of South Carolina, induction 4/3/12
- Special Achievement Award, July 2012, American Academy of Pediatrics and the South Carolina Chapter of the AAP—"for distinguished service and dedication to the mission and goals of the Academy, for his many contributions to the chapter and to the AAP Committee on Genetics"

- Special Recognition, March 2013, Self Regional Healthcare Family Medicine Residency Program—"for years of teaching excellence in the areas of Pediatrics and Medical Genetics, with much gratitude by the Faculty and Residents"

- Visiting Professor, Lehigh Valley Health Network, Department of Pediatrics, March 26-27, 2013—Genetics

- Cited at the 2014 AAP Annual Leadership Forum (March 2014) as leading the American Academy of Pediatrics Committee on Genetics (COG) for two commendations—Innovation (publication of the *Medical Genetics in Pediatric Practice* AAP manual); Communication and Collaboration

- Invited lecturer at the15th Annual Meinhard Robinow Lectureship in Pediatrics (Pediatric Grand Rounds, April 24, 2014; University of Virginia School of Medicine, Department of Pediatrics)—annual endowed lectureship in the field of pediatrics, sustaining Dr. Robinow's enduring legacy as a gifted teacher and physician.

- *Medical Genetics in Pediatric Practice* (an AAP Policy Manual and edited by Robert A. Saul, MD) received an honorable mention in the American Medical Writers Association Medical Book Awards for 2014

- Invited presenter to the pediatric residents, Sanford Health, Sioux Falls, SD, November 20, 2014

- Invited keynote speaker/lecturer at the 7th Annual Denny Sanford Pediatric Symposium, Sanford Health, Sioux Falls, SD, November 21, 2014

- Invited speaker at the 2015 Institute for Child Success Research Symposium, Greenville, SC, October 16, 2015.

- Invited speaker at the NORD (National Organization for Rare Diseases) 2015 Rare Diseases and Orphan Products Breakthrough Summit, Arlington, VA, October 21, 2015.

- Active membership, American Pediatric Society (APS), effective 1/1/16

- Invited speaker for the inaugural O. Marion Burton, MD Lecture at the O. Marion Burton, MD CATCH meeting, Charleston, SC, January 22, 2016.

- Invited Program Chair, RD1°: Optimizing Primary Care for Patients with Rare Diseases a continuing medical education (CME) event presented by the Association for Comprehensive Care in Rare Diseases (ACCORD), June 9-10, 2016. [meeting postponed—content to be posted online]; website established – http://www.rareopportunities.com/CME

- Special Achievement Award, January 2017, American Academy of Pediatrics and the South Carolina Chapter of the AAP—"for distinguished service and dedication to the mission and goals of the Academy, a very active member of the chapter, recently completed his term as Chair of the Section on Genetics and Birth Defects. He has published a highly rated and acclaimed book entitled 'My Children's Children: Raising Young Citizens in the age of Columbine.' Dr. Saul has been active in the chapter for years. He has recently become director of The Center for Pediatric Medicine Greenville Health System. He is the 2015-2016 Continuing Medical Education (CME) Chair for the chapter."

- Awardee, American Academy of Pediatrics 2018 David W. Smith Award for Excellence in Genetics and Birth Defects Education (presented by the Council on Genetics)

- Awardee, Paul V. Catalana, MD Exemplary Character Award, 2018 (awarded by the pediatric residents yearly to a faculty member)

LICENSURE:

- Diplomate, National Board of Medical Examiners - 1977

- North Carolina - 1978, (#22623--inactive)

- South Carolina - 1978, (#8983)

- American Board of Pediatrics, 1981 (#25887)

- Drug Enforcement Administration, DEA #AS8702474 – 1981

- American Board of Medical Genetics, 1982, Clinical Genetics (#1432)

COMMUNITY AFFILIATIONS:

- Emerald Center - Steering committee for Emerald Center Golf Classic

- First Presbyterian Church - Deacon 1992-1994, Elder 1995-1998, 2005- 2007; Health Cabinet 1998-2000, Outreach Committee 1996-2000

- Noah's Ark Program, Chairperson, 1996-1997

- Greenwood Rotary Club - 1993-2012
- Life-Long Learning Steering Committee, Greenwood Chamber of Commerce –1995- 1996
- Greenwood County Wellness Celebration, 1995-1999 (Co-chairperson)
- Greenwood Chamber of Commerce, Board of Directors, 1996 – 2003 (Chair, WorkForce Development Initiative 1999 – 2001); Chamber President, 2002
- Greenwood Community Children's Center, Steering Committee, 1996; Board of Directors (Chairperson), 1996-2000; Senior Consultant, 2000-2001.
- Community Outreach Committee, Board of Directors, Self Memorial Hospital, 1998-2000.
- Board of Trustees, South Carolina First Steps to School Readiness, 1999-2003
- Chair, Grant/Applications Committee, Board of Trustees, South Carolina First Steps, 1999-2003
- Chairperson, Children's Rehabilitative Services Medical Advisory Committee, DHEC, 1997-2004
- Cambridge Academy, Board of Trustees, 2001- 2006
- Greenwood Fifty School Facilities, Inc., Secretary-Treasurer, 2006-2009, Chair, 2009-2013 (Capital Improvements Board)
- Lander University Board of Visitors, 2007-2009
- Website, http://mychildrenschildren.com
- Greenwood Touchdown Club, President, 2008- 2012
- Children's Hospital, Greenville Health System, Development Council, 2013 – 2019

JOURNAL REVIEWER (episodic)

- American Journal of Medical Genetics
- BMC Medical Genomics
- Early Human Development
- GeneReviews
- Genetics in Medicine
- Journal of Pediatrics

- Pediatrics
- Pediatrics in Review
- Molecular Genetics and Metabolism

RESEARCH STUDIES:

- Novartis Pharmaceuticals**:** A randomized, double-blind, placebo-controlled, parallel group study to evaluate AFQ056 in adult patients with Fragile X Syndrome (CAFQ056A2212)-active; Role: Sub-investigator (2011-2012)

- Novartis Pharmaceuticals: An open-label study to evaluate the long-term safety, tolerability and efficacy of AFQ056 in adult patients with Fragile X Syndrome (CAFQ056B2279)-active; Role: Sub-investigator (2011-2012)

- Novartis Pharmaceuticals: A randomized, double-blind, placebo-controlled, parallel group study to evaluate the efficacy and safety of AFQ056 in adolescent patients with Fragile X Syndrome (CAFQ056B2214)-active; Role: Sub-investigator (2011-2012)

- Genetics in Primary Care Institute: Residency Education Initiative Study. AAP IRB-approved study submitted to the Association of Pediatric Residency Program Directors, 2013; Role: Principal investigator (2013)

- Principal Investigator—Insights on Evaluation of Children with Developmental Disability – a component of the early identification and treatment of Fragile X syndrome (FXS) needs assessment project. AAP Study ID# 15 SA 01. Approved July 2015

- Principal Investigator--Insights on Evaluation of Children with Developmental Disabilities-a component of the early identification and treatment of Fragile X Syndrome (FSX) needs assessment project. Phase 2" (IRB Study # 15 SA 02).

PUBLICATIONS for Robert A. Saul, MD:

<u>Articles and publications</u>

1. **Saul RA**, Vernon M, Roe C and Osofsky S: Rhabdomyolysis in a patient with nonoliguric renal failure: Similarities to the toxic-shock syndrome. South Med J 73:261, 1980.

2. **Saul RA**, Riley S, Jorgenson R, Rogers JF, Young R and Hickson E: Amniocentesis and prenatal diagnosis in South Carolina: A collaborative report for the years 1976 to 1979. J So Car Med Assn 76:387-390, 1980.

3. **Saul RA**, Osofsky SG: Myositis with Staphylococcal infections (Letter). J Pediatr 97:701, 1980.

4. Potts WE, Riley S and **Saul RA**: Transport media for solid tissue. Karyogram 7(3):37, 1981.

5. **Saul RA**, Lee WH, and Stevenson RE: Caffey Disease Revisited: Further evidence for autosomal dominant inheritance with incomplete penetrance. Am J Dis Child 136:56, 1982

6. **Saul RA**, Stevenson RE, and Bley R: Mental retardation in the Bannayan syndrome. Pediatrics 69:642, 1982.

7. **Saul RA** (editor): Proceedings of the Greenwood Genetic Center, Vol 1, 1982.

8. **Saul RA**, Stevenson RE, Simensen RJ, Wilkes G, Alexander W and Taylor HA: Fragile X syndrome in South Carolina. J So Car Med Assn, 78:275-277, 1982.

9. **Saul RA**, Sturner RA, and Burger PC: Hyperplasia of the myenteric plexus: Its association with early infantile megacolon and neurofibromatosis. Am J Dis Child 136:852-854, 1982.

10. **Saul RA** (editor): Proceedings of the Greenwood Genetic Center, Vol 2, 1983.

11. Potts WE, **Saul RA**, Riley SE, Stevenson RE and Taylor HA: Transport media for tissue specimens: A comparative study, Am J Med Genet 15:507-510, 1983.

12. **Saul RA** (editor): Proceedings of the Greenwood Genetic Center, Vol 3, 1984.

13. **Saul RA** (editor): Proceedings of the Greenwood Genetic Center, Vol 4, 1985.

14. **Saul RA**: Noonan syndrome in a patient with hyperplasia of the myenteric plexuses and neurofibromatosis, Am J Med Genet 21:491, 1985.

15. **Saul RA** (editor): Proceedings of the Greenwood Genetic Center, Vol 5, 1986.

16. **Saul RA**: Idiopathic Cortical Hyperostosis in Current Pediatric Therapy - 12th edition, Gellis SS, Kagan BM, Eds., WB Saunders, Philadelphia, 1986, pp. 422-423.

17. **Saul RA** (editor): Proceedings of the Greenwood Genetic Center, Vol 6, 1987.

18. **Saul RA** (editor): Proceedings of the Greenwood Genetic Center, Vol 7, 1988.

19. Schwartz CE, Phelan MC, Pulliam LH, Wilkes G, Vanner LV, Albiez KL, Potts WA, Rogers RC, Schroer RJ, **Saul RA**, Prouty LA, Dean JH, Taylor HA, and Stevenson RE: Fragile X syndrome: Incidence, clinical and cytogenetic findings in the black and white populations of South Carolina, Amer J Med Genet 30:641, 1988.

20. **Saul RA**, Stevenson RE, Rogers RC, Skinner SA, Prouty LA, and Flannery DB: Growth References from Conception to Adulthood, Suppl 1, Proc Greenwood Genet Center, 1988.

21. **Saul RA**: Gastric outlet obstruction in chronic granulomatous disease, J Pediatr 114:505, 1989.

22. **Saul RA** (editor): Proceedings of the Greenwood Genetic Center, Vol 8, 1989.

23. **Saul RA** (editor): Proceedings of the Greenwood Genetic Center, Vol 9, 1990.

24. **Saul RA** and Wilson WG: A "new" skeletal dysplasia in two unrelated boys, Am J Med Genet 35:388-393, 1990.

25. Stevenson RE, **Saul RA**: Mucopolysaccharidosis VI, Birth Defects Encyclopedia, Buyse ML, ed., 1990, pp. 1166-1167.

26. **Saul RA** (editor): Proceedings of the Greenwood Genetic Center, Volume 10, 1991.

27. Schwartz CE, Brown AM, Der Kaloustian VM, McGill CC, **Saul RA**. 1991. DNA fingerprinting: the utilization of minisatellite probes to detect a somatic mutation in the Proteus syndrome. In: Burke T, Dolf G, Jeffreys AJ, Wolff R, editors. DNA fingerprinting approaches and applications. Basel, Switzerland: Birkhauser Verlag. P 95-105.

28. McNeil MM, Brown JM, Magruder CH, Shearlock KT, **Saul RA**, Allred DP, Ajello L: Disseminated Nocardia transvalensis infection: an unusual opportunistic pathogen in severely immunocompromised patients. J Infect Dis 165(1):175-178, 1992.

29. **Saul RA** (editor): Proceedings of the Greenwood Genetic Center, Volume 11, 1992.

30. Phelan MC, Thomas GR, **Saul RA**, Rogers RC, Taylor HA, Wenger DA, McDermid HE: Cytogenetic, biochemical, and molecular analyses of a 22q13 deletion, Am J Med Genet 43:872-876, 1992.

31. Simensen RJ, **Saul RA**, Tarleton JC, Phelan MC: Neuropsychological functioning in fragile X syndrome and monosomy X mosaicism: A case presentation. Int J Psychol 27:3&4,395, 1992.

32. **Saul RA**: Wrongful birth: My right to a perfect baby. In In the Beginning: Ethical Issues Surrounding the Beginnings of Human Life, Bost RM, ed., The Center for Ethical Development, Newberry College, 1992, pp.55-62.

33. **Saul RA**, R. Curtis Rogers, Mary C. Phelan, Stevenson RE: Brachmann-de Lange syndrome: Diagnostic difficulties posed by the mild phenotype, Am J Med Genet 47:999-1002, 1993.

34. **Saul RA**: The Importance of Measurements, in Human Malformations and Related Anomalies, Volume I, Stevenson RE, Hall JG, Goodman RM, eds., Oxford University Press, New York, 1993.

35. Tarleton JC, **Saul RA**: Molecular genetic advances in fragile X syndrome, J Pediatr 122:169-185, 1993.

36. **Saul RA**, Phelan MC (Co-editors): Proceedings of the Greenwood Genetic Center, Volume 12, 1993.

37. **Saul RA**, Phelan MC (Co-editors): Proceedings of the Greenwood Genetic Center, Volume 13, 1994.

38. **Saul RA**, Phelan MC (Co-editors): Proceedings of the Greenwood Genetic Center, Volume 14, 1995.

39. Phelan MC, **Saul RA**, Gailey TA, Skinner SA: Prenatal diagnosis of mosaic 4p- in a fetus with trisomy 21. Prenatal Diagnosis 15: 274-277, 1995.

40. Tarleton JC, **Saul RA**: Fragile X syndrome, *GeneClinics* online service, 1996, 1998.

41. **Saul RA**, Phelan MC (Co-editors): Proceedings of the Greenwood Genetic Center, Volume 15, 1996.

42. **Saul RA**, Phelan MC (Editors): Proceedings of the Greenwood Genetic Center, Volume 17, 1998.

43. Sweet KM, **Saul RA**. Expanding community education in genetics in South Carolina. American Journal of Human Genetics, Vol. 63, No. 4, Abstract 1177, October 1998.

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46. Lovell CM, **Saul RA**: Down Syndrome clinic in a semi-rural setting, Am J Med Genet 89:91-95, 1999.

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48. **Saul RA** (Editor): Proceedings of the Greenwood Genetic Center, Volume 19, 2000.

49. Phelan MC, Rogers RC, **Saul RA**, Stapleton GA, Sweet K, McDermid H, Shaw SR, Claytor J, Willis J, Kelly DP: 22q13 Deletion Syndrome. Am J Med Genet 101:91-99, 2001.

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51. **Saul RA** (Editor): Proceedings of the Greenwood Genetic Center, Volume 21, 2002.

52. **Saul RA** and Tarleton JC (November 2002) Fragile X Syndrome In: GeneReviews: Genetic Disease Online Reviews at GeneTests-GeneClinics [database online]. Copyright, University of Washington, Seattle. Available at http://www.geneclinics.org.

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59. **Saul RA**, Proud V, Taylor HA, Leroy J, Spranger J: Prenatal mucolipidosis type II (I-cell disease) can present as Pacman dysplasia, Amer J Med Genet 135A (3):328-332, 2005.

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64. **Saul RA** (Editor): Proceedings of the Greenwood Genetic Center, Volume 25, 2006.

65. Lebel RR, **Saul RA**: Cancer epidemiology and genetics (Letter), J So Car Med Assn 103:18, 2007.

66. **Saul RA** (Editor): Proceedings of the Greenwood Genetic Center, Volume 26, 2007.

67. **Saul RA**, Tarleton JC (updated December 2007) *FMR1*-Related Disorders in: GeneReviews at GeneTests: Medical Genetics Information Resource [database online]. Copyright, University of Washington, Seattle. 1997-2007. Available at http://www.genetests.org.

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70. **Saul RA**, Friez MJ, Eaves K, Stapleton GA, Collins JS, Schwartz CE, Stevenson RE: Fragile X Syndrome Detection in Newborns – Pilot Study. Genet Med 10:714-719, 2008.

71. **Saul RA**, Moeschler JB: How best to use CGH arrays in the clinical setting (letter). Genet Med 11:371, 2009.

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78. **Saul RA**, Rushton FE, Jr. Genetics and the Community: A Commentary. In: Saul RA, ed. *Medical Genetics in Pediatric Practice.* Elk Grove Village, IL: American Academy of Pediatrics; 2013: 289-298

79. Chen E, **Saul RA**. Building an accurate family history, constructing a pedigree—an overview for primary care. Time Out for Genetics Webinar Series, 2013. [http://www.geneticsinprimarycare.org/Provider%20Education/Pages/gpci-webinars.aspx#jump-2]

80. **Saul RA**, Wright R. Epigenetics—what your patients are asking, what you need to know. Time out for Genetics Webinar Series, 2013. http://www.geneticsinprimarycare.org/Provider%20Education/Pages/gpci-webinars.aspx#jump-2

81. Tarini BA, **Saul RA**. Personalized Medicine in Primary Care: The Need for Relevance. Editorial. Personalized Medicine 2013; 10(6):515-517.

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84. **Saul RA**. Genetic and Genomic Literacy in Pediatric Primary Care. PEDIATRICS Vol. 132 No. Supplement 3 December 1, 2013. pp. S198 -S202 (doi: 10.1542/peds.2013-1032C)

85. Wright R, **Saul RA**. Epigenetics and Primary Care. PEDIATRICS Vol. 132 No. Supplement 3 December 1, 2013. pp. S216 -S223 (doi: 10.1542/peds.2013-1032F)

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89. **Saul, R**. Fragile X Syndrome. In: Kelleher, KM, et al, eds. Pediatric Care Online. Elk Grove Village, IL: American Academy of Pediatrics. Available at: www.pediatriccareonline.org (in process, 2014)

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101. **Saul RA**: Private Practice (Letter to the editor). The Pharos August 2019:45.

102. Rushton, FE, **Saul R**. The Need for an Evidence-Base for Home Visitor-Pediatric Medical Home Partnerships: a Call to Action. *Int. Journal on Child Malt.* (2021). https://doi.org/10.1007/s42448-021-00077-7 (International Journal on Child Maltreatment: Research, Policy and Practice,2021)

Books

1. **Saul RA**, Seaver LH, Sweet KM, Geer JS, Phelan MC, Mills CM: Growth References: Third Trimester to Adulthood, Greenwood Genetic Center, Keys Printing, 1998, 184 pages.

2. **Saul RA**. My Children's Children: Raising Young Citizens in the Age of Columbine. CreateSpace, Charleston SC, December 2013, 236 pp. (ISBN 978-1493502363)

3. **Saul RA**, ed. *Medical Genetics in Pediatric Practice.* Elk Grove Village, IL: American Academy of Pediatrics; 2013 (ISBN-13: 978-1581104967) [received an honorable mention in the American Medical Writers Association Medical Book Awards for 2014]

4. **Saul RA** (Jan Yalich Betts, illustrator). All About Children. A children's book companion to My Children's Children: Raising Young Citizens in the Age of Columbine. Robert A Saul (IngramSpark), July 11, 2017, 34 pp. (ISBN 978-0692153680)

5. Garner A and **Saul RA**: Thinking Developmentally: Nurturing Wellness in Childhood to Promote Lifelong Health. American Academy of Pediatrics, June 15, 2018. 175 pp. (ISBN-13: 978-1610021524)

6. **Saul RA.** Conscious Parenting: Using the Parental Awareness Threshold. (Koehler Books, publication date 03/17/20) Paperback: 100 pages, ISBN-13: 978-1646630417